Date: November 16th, 2009

Lesson Title: Literal Equations

Objective: To solve equations that have more than one variable (literal equations)

IN:
Solve:
$2(x+3) + 3(x + 2) + 5(x + 3) = 9(x - 1)$

What happens when it looks like this:

and says solve for  ?

How do we "undo" to get  by itself?

So let's look at problems that make more sense...

Solve for y [write the equation so it says y = (the rest of the stuff)]

1. $x + y = 6$

So let's look at problems that make more sense...

Solve for y [write the equation so it says y = (the rest of the stuff)]

2. $x \cdot y = 10$

So let's look at problems that make more sense...

Solve for y [write the equation so it says y = (the rest of the stuff)]

3. $\frac{y}{x} = 20$

So let's look at problems that make more sense...

Solve for y [write the equation so it says y = (the rest of the stuff)]

4. $y - x = -10$

So let's look at problems that make more sense...

Solve for y [write the equation so it says y = (the rest of the stuff)]

5. $2x+4y=16$

When would we need equations written like that?

What about these?

Solve for w: $A = lw$

Find the width of a rectangle that has an area of 42 ft^2 and length 6 ft.

When would we need equations written like that?

What about these?

Solve for w: $P = 2l + 2w$

Find the width of a rectangle that has a perimeter of 22 ft. and length 8 ft.

Summary:

To solve a literal equation I must ....., because .....

Out:

Solve for r:

$$C = 2\pi r$$